SOLIDWORKS SHEET METAL

Length: 2 Days

Prerequisites: The SOLIDWORKS Essentials course and experience with the Windows® operating system.

Description: The SOLIDWORKS Sheet Metal course teaches how to build and design sheet metal parts using SOLIDWORKS mechanical design automation software. Building standalone sheet metal parts, converting conventional parts to sheet metal, and in-assembly contexts are covered.

Course Agenda:

Lesson 1: Basic Flange Features
What are Sheet Metal Parts?
Sheet Metal Methods
Unique Sheet Metal Items
Flange Method
Base Flange/Tab
Sheet Metal Parameters
Editing Sheet Metal Parameters
Sheet Metal Bend Features
Flat-Pattern Feature
Additional Flange Features
Edge Flanges
Editing the Flange Profile
Edge Flanges on Curved Edges
Miter Flanges
Hem Feature
Tab Feature
Cuts in Sheet Metal
Summary of Flange Features

Lesson 2: Working with the Flat Pattern
Working with the Flat Pattern
Flat Pattern Settings
Features for Manufacture
Corner-Trim Feature
Corners in the Formed State
Closed Corner
Corner Relief
Break Corner/Corner Trim
Producing the Flat Pattern
Sheet Metal Cut List Properties
Flat Pattern Drawing Views
Flat Pattern View Properties
Drawing Document Properties
Sheet Metal Tables

Lesson 3: Additional Sheet Metal Techniques
Additional Sheet Metal Methods
Designing from the Flat
Sketched Bend Feature
Jog Feature
Adding Features in an Unfolded State
Unfold and Fold
Swept Flange
Swept Flange Flat Pattern Options
Lofted Bends
Lofted Bends in the Design Library

Lesson 4: Converting to Sheet Metal
Sheet Metal Conversion
Insert Bends Method
Imported Geometry to Sheet Metal
Adding Rips
Insert Bends
Making Changes
Welded Corner
Converting Cones and Cylinders
Convert to Sheet Metal

Lesson 5: Multibody Sheet Metal Parts
Multibody Sheet Metal Parts
Multibodies with Base Flange
Sheet Metal Parameters for Multibodies
Cut List Item Properties for Multibodies
Flat Pattern Drawing Views for Multibodies
Cut List Balloon Annotations
Exporting to DXF/DWG with Multibodies
Convert with Multibodies
Hiding and Showing Bodies
Using Split with Sheet Metal Parts
Patterning for Multibodies
Using Edge Flanges to Merge Bodies
Interfering Bodies
Combining Sheet Metal with Other Bodies

Lesson 6: Forming Tools and Gussets
Sheet Metal Forming Tools
Standard Forming Tools
Form Tool Features in the Flat
Part Document Properties
Custom Forming Tools
Split Line
Forming Tool
Form Tools in Drawings
Sheet Metal Gusset

Lesson 7: Additional Sheet Metal Functions
Additional Sheet Metal Functions
Cross-Breaks
Vent Features
Mirror Part
Process Plans
Sheet Metal Costing

Appendix A: Sheet Metal Tables
Tables
Customizing Tables
K-Factor Ratio Tables